NAVAL POSTGRADUATE SCHOOL

Monterey, California

THESIS

AN ANALYSIS OF THE FACTORS
AFFECTING THE CAREER ORIENTATION
OF JUNIOR MALE U.S. ARMY OFFICERS

by

HA, TAE HWAN

December, 1989

Thesis Advisor: GEORGE W. THOMAS

REPORT DOCUMENTATION PAGE

1a. REPORT SECURITY CLASSIFICATION UNCLASSIFIED	1b. RESTRICTIVE MARKINGS
2a. SECURITY CLASSIFICATION AUTHORITY	3. DISTRIBUTION/AVAILABILITY OF REPORT Approved for public release; distribution is unlimited.
2b. DECLASSIFICATION/DOWNGRADING SCHEDULE	
4. PERFORMING ORGANIZATION REPORT NUMBER(S)	5. MONITORING ORGANIZATION REPORT NUMBER(S)
6a. NAME OF PERFORMING ORGANIZATION Naval Postgraduate School 6b. OFFICE SYMBOL (*If applicable*) Code 54	7a. NAME OF MONITORING ORGANIZATION Naval Postgraduate School
6c. ADDRESS (*City, State, and ZIP Code*) Monterey, CA 93943-5000	7b. ADDRESS (*City, State, and ZIP Code*) Monterey, CA 93943-5000
8a. NAME OF FUNDING/SPONSORING ORGANIZATION 8b. OFFICE SYMBOL (*If applicable*)	9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER
8c. ADDRESS (*City, State, and ZIP Code*)	10. SOURCE OF FUNDING NUMBERS Program Element No / Project No / Task No / Work Unit Accession Number

11. TITLE (*Include Security Classification*)
An Analysis of the Factors Affecting the Career Orientation of Junior Male U.S. Army Officers

12. PERSONAL AUTHOR(S) Ha, Tae Hwan

13a. TYPE OF REPORT	13b. TIME COVERED	14. DATE OF REPORT (*year, month, day*)	15. PAGE COUNT
Master's Thesis	From To	December, 1989	85

16 SUPPLEMENTARY NOTATION
The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government.

17. COSATI CODES			18 SUBJECT TERMS (*continue on reverse if necessary and identify by block number*)
FIELD	GROUP	SUBGROUP	Junior Male U.S. Army Officers Career Orientation

19. ABSTRACT (*continue on reverse if necessary and identify by block number*)

This thesis developed a model to assess the effects of factors influencing the career orientation of junior male Army officers using the Army portion of the 1985 DOD Officers and Enlisted Personnel Survey Member File. Junior Officers were classified as early juniors or late juniors according to their length of service (four months to four years and five to ten years). A multivariate logit regression model was estimated utilizing explanatory variables which were classified into demographic/personal, environmental, intrinsic or extrinsic categories, to explain career orientation (plans to serve twenty years or more). The results indicate that demographic factors (length of service, commissioning sources) and intrinsic factors (personnel freedom, friendship, coworkers, patriotism, job satisfaction, job training, job security and working conditions) have strong effects on the career orientation of both levels of junior officers. Futher, early junior officers are affected by the package of retirement benefits and late junior officers are affected by factors related to family. This study shows that expressed intentions of members can be used as valid indicators of later behavior based on the closeness of the match between intentions and actual behavior. This study should provide guidelines for personnel managers and policy makers to maintain targeted strengths of junior officers.

20 DISTRIBUTION/AVAILABILITY OF ABSTRACT	21. ABSTRACT SECURITY CLASSIFICATION	
☒ UNCLASSIFIED/UNLIMITED ☐ SAME AS REPORT ☐ DTIC USERS	UNCLASSIFIED	
22a NAME OF RESPONSIBLE INDIVIDUAL George W. Thomas	22b TELEPHONE (*Include Area code*) (408) 646-2741	22c OFFICE SYMBOL CODE 54TE

DD FORM 1473, 84 MAR 83 APR edition may be used until exhausted
All other editions are obsolete

SECURITY CLASSIFICATION OF THIS PAGE

Approved for public release; distribution is unlimited.

An Analysis of the Factors Affecting the Career Orientation of Junior Male U.S. Army Officers

by

Ha, Tae Hwan
Major, Republic of Korea Army
B.A., Korea Military Academy, 1981

Submitted in partial fulfillment
of the requirements for the degree of

MASTER OF SCIENCE IN MANAGEMENT

from the

NAVAL POSTGRADUATE SCHOOL
December 1989

ABSTRACT

This thesis developed a model to assess the effects of factors influencing the career orientation of junior male Army officers using the Army portion of the 1985 DOD Officers and Enlisted Personnel Survey Member File. Junior officers were classified as early juniors or late juniors according to their length of service (four months to four years and five to ten years). A multivariate logit regression model was estimated utilizing explanatory variables which were classified into demographic/ personal, environmental, intrinsic or extrinsic categories, to explain career orientation (plans to serve twenty years or more). The results indicate that demographic factors(length of service, commissioning sources) and intrinsic factors(personnel freedom, friendship, co-workers, patriotism, job satisfaction, job training, job security and working conditions) have strong effects on the career orientation of both levels of junior officers. Further, early junior officers are affected by the package of retirement benefits and late junior officers are affected by factors related to family. This study shows that expressed intentions of members can be used as valid indicators of later behavior based on the closeness of the match between intentions and actual behavior. This study should provide guidelines for personnel managers and policy makers to maintain targeted strengths of junior officers.

C.1

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

I. INTRODUCTION

George Washington warned that to remain free the nation must be prepared for war. To preserve the United States as a free nation with its fundamental institutions and values intact, strong and capable armed forces are essential. The officer corps is a crucial element in the effectiveness of any military establishment. An armed force must attract an adequate supply of officers from the limited number of individuals in the population who possess the necessary leadership qualities and motivation.

Technological changes in mid-twentieth century - the advent of air power and, more recently, nuclear technology decreased the time needed, and increased the distance possible, for the use of a weapon system. A distinction between peacetime and wartime becomes less relevant for a military organization. A high retention rate of qualified and experienced officers ensures not only the ability to maintain combat readiness, but economic efficiency as well.

First, with respect to combat readiness, there has been an increase in the demand for many diverse and higher level skills, and the length of time in service required to become proficient

in weapon system operation, management and support tasks has also been increasing. Second, with respect to economic efficiency, the U.S. Army invests substantial funds in recruiting and training personnel each year. As weapon systems and combat support roles have become more sophisticated and skill-intensive, the average training cost has increased. The cost is reflected in terms of expensive recruiting and retention activities, and numerous and repeated training programs.

The objectives of this thesis are to identify and assess the effects of factors which influence career orientation of junior male Army officers and ascertain which are likely to be the most effective in influencing retention. Results should provide a basis for assessing appropriate management policies to achieve derived officer retention objectives. Specifically, a multi-variate regression model is developed which attempts to identify the relative importance of factors that affect the intentions of officers to serve in the Army.

A. BACKGROUND

American youth do not regard the military as a normal organizational working setting. That is, there are significant differences in average evaluations of nonmonetary as well as monetary aspects of the job, although there is also considerable

overlap in the assessments of young people. Although this overlap indicates that the military is a generally convergent work setting, nevertheless it may not be seen as a particularly attractive one. Such negative perceptions are especially true for the Army with more jobs that have high levels of disamenities and hardships. [ref.5]

Blair and Phillips (1983) in a comparison of the quality of work life in military and in civilian jobs predicted high attrition rates of military workers due to the less satisfactory quality of work life and the lower met expectations. [ref.5]

The Army's retention policy emphasizes the retention of a maximum number of new officer accessions, consistent with quality standards.

1. Voluntary Turnover Rates of Army Officers

Although any single measure is inadequate to assess turnover, available data indicate that Army officer turnover has shown a gradual increase during the fiscal years 1983 and 1988. Voluntary retirements of Army officers have not attained the absolute numbers which might be considered critical. However, if one follows the trend of voluntary retirements during the past eight years, it is possible to conclude that a problem is in the making. Figure 1 shows this trend.

Figure 1

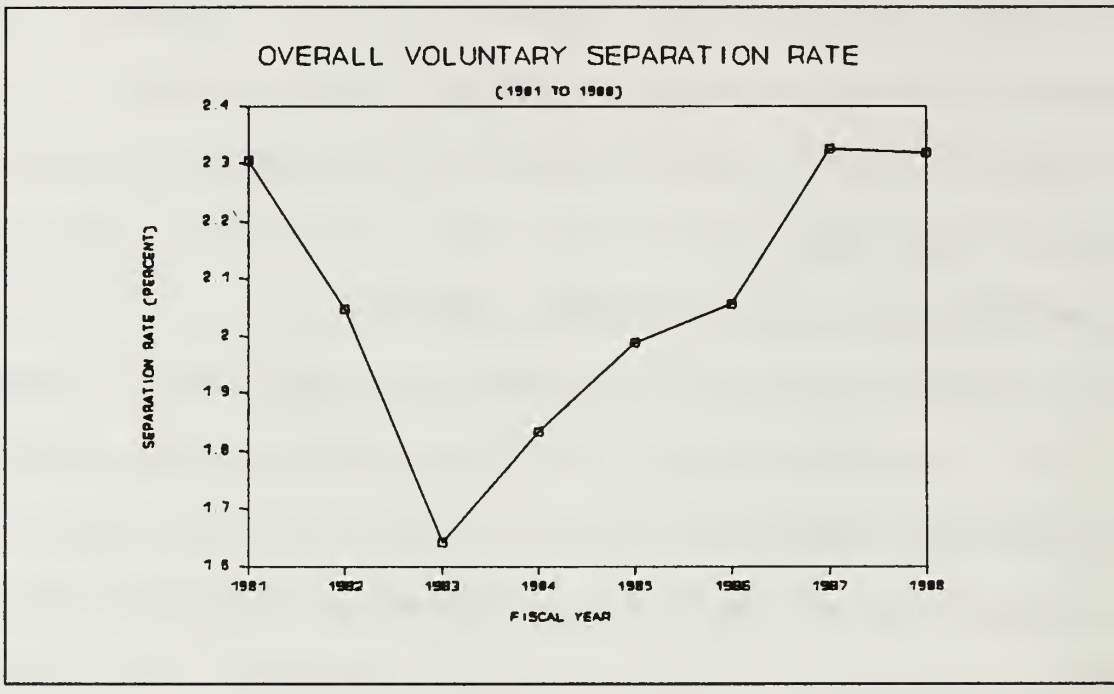
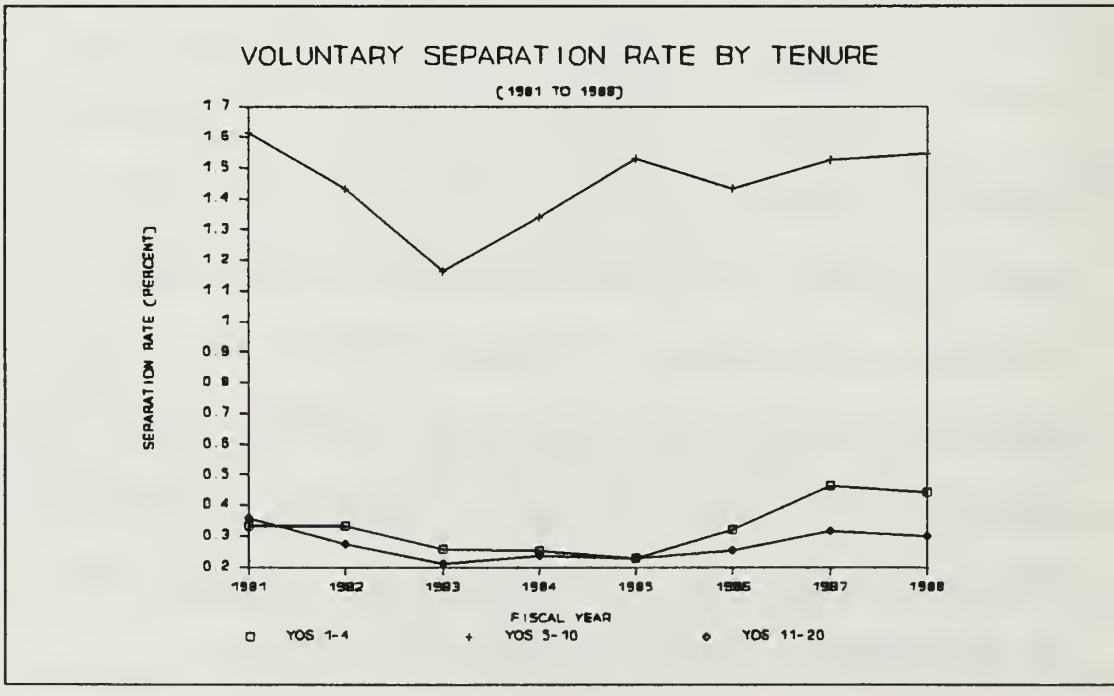


Figure 2



Analyzing the voluntary separation curve in terms of length of service, the bulk of observations occur between 5 and 10 years of service as shown in Figure 2. Seventy percent of voluntary retirements are within the 5 to 10 year period of active duty, sixteen percent in 1-4 YOS, and twelve percent in 11-15 YOS. Figure 2 also shows the sharp increase in the voluntary attrition rate for the population of 1 through 4 years of service after FY 1985. It is quite important to assess the factors influencing the career orientation of this group who are within the first obligation term.

2. Impact of Turnover

The requirement for experienced leadership is important especially to a military organization. Experienced leadership is a function generally dependent upon years of training and the continued exercise of judgement within a military context. Unlike industry which has no direct counterpart for strictly military functions, the Army cannot induce highly qualified executives from the outside to take on the various roles of military officers. [ref.1]

High rates of early separation prevent the Army from fielding its authorized effective strength because of a shortage of experienced officer personnel.

High rates of early separation are also detrimental to the cost-effectiveness of the Army. The cost of commissioning an officer by source was analyzed in detail by Benjamin Schemmer (Armed Forces Journal, 1985, September and November) and summarized by him in the Washington Post (December 1, 1985). He noted that the cost of a West Point graduate was $225,000 compared to only $27,400 for an ROTC officer and $2,250 for an Officer Candidate School (OCS) graduate. Hence, if the West Point graduate officer stays with the Army for a shorter period compared to an ROTC or an OCS officer, commissioning more officers from West Point is not likely to be cost-effective for the Army. [ref.27 p.8]

B. PURPOSE

The purpose of this thesis is to identify factors which influence the career decision making process of male Army officers, and to build a statistical model which attempts to identify the relative importance of factors that affect the intentions of officers to serve in the Army. In addition, this thesis will examine the difference between retention intention of officers and their actual retention behavior.

In this thesis, the analysis of career orientation is restricted to junior male Army officers because such decisions

are important in the early years of a career. A career officer is commonly regarded as one who intends to remain on active duty for a minimum of 20 years, thereby qualifying for retirement benefits [ref.13]. Junior Army officers are defined as those officers who are in the pay grade levels O1 to O4. The ranks of officers in these pay grade levels are, respectively, Second Lieutenant, First Lieutenant, Captain and Major. Partly because of the retirement benefit, once the officers have vested ten or more years of their career life they tend to stay with the Army until retirement. [ref.27]

The findings of this thesis will provide some guidelines for Army policy makers (or/and managers) to develop policies (or/and to carry out polices) which can more positively influence the career decisions of junior male Army officers.

C. ORGANIZATION

Chapter II will review the theory and the existing general and military literature on the subject of turnover and motivation. Chapter III will describe the data base selected, explain the variables used, and specify the model chosen to analyze the career intentions of junior male Army officers. Chapter IV will discuss the results of the estimation of the model. This chapter also describes the relationship between the

retention intention of officers and their actual behavior. Chapter V summarizes the major findings and suggests some implications of these results. The thesis concludes by offering some recommendations for future research.

II. LITERATURE REVIEW

Many researchers have conducted studies to determine factors related to turnover and retention. When we are considering the actions of individuals, it is worthwhile to review theories explaining individual human behavior as well as literature on military/civilian retention/turnover. Understanding these theories and literatures will aid in developing a conceptual model of career orientation.

A. TURNOVER/MOTIVATION THEORY

1. Turnover

Voluntary separations are termed "quits" and involuntary separations are termed "layoffs". Human capital theory predicts that workers employed at lower-wage jobs than they could obtain elsewhere are most prone to quitting. That is, workers may decide to quit if their wages fall below what they could get elsewhere. If nonwage factors are constant, workers will flow from jobs with lower wages to those with higher wages.

Another implication of the theory is that workers will have a higher probability of quitting when it is relatively easy for

them to obtain a better job quickly. Thus, when jobs are more plentiful relative to job-seekers, the quit rate tends to be higher than when few jobs are available and many workers are being laid off. [ref.12]

Turnover falls as age rises. Workers are more likely to indicate feelings of satisfaction as they become older and as their actual earnings exceed an estimate of their alternative earnings. Studies that have investigated differences in quit rates among various industries have generally found that other things (i.e., wages) equal, quit rates are higher when the proportion of younger workers is greater. And, also, the probability that a worker will quit tends to decline with job tenure. [ref.12]

Another prediction of human capital theory is that quit rates will be higher when the costs of quitting are lower. [ref. 12]

2. Motivation

One of the major theories of motivation is Maslow's hierarchy of needs which classifies human needs into five hierarchical categories: physiological, security, belongingness and love, esteem, self-actualization. According to Maslow, individuals will be motivated to fulfill whichever need is

prepotent, or most powerful, for them at a given time. The prepotency of a need depends on the individual's current situation and recent experiences. Starting with the physical needs, which are most basic, each need must be at least partially satisfied before the individual desires to satisfy a need at the next higher level. [ref.23, 25]

Equity theory proposed by Adams(1965) holds that an individual's motivation, performance, and satisfaction depend on his effort/reward ratio and the effort/reward ratio of others in similar situations. People compare what they are being paid for their effort. When they feel that inequity exists, underpaid workers may try to reduce the inequity by exerting less effort or leaving the organization. [ref.25, 30]

A two factor theory proposed by Herzberg(1950) holds that job satisfaction and job dissatisfaction come from two separate sets of factors, which are satisfiers (motivating factors) and dissatisfiers ("hygiene" factors). The satisfiers are related to the nature of the work and to rewards that result directly from performance of the work tasks. The dissatisfiers included salary, working conditions, and organization policy. The important point for this discussion is that hygiene factors will not increase job satisfaction but only prevent job dissatisfaction and that rewards can have a positive effect on

job satisfaction if the rewards are considered to be substantial. [ref.18, 25]

B. LITERATURE RESEARCH

Many studies have been conducted in both military and civilian organizations to identify the factors which may influence the turnover of their organizations.

Mobley suggests several of the possible intermediate steps in the employee turnover decision process. The turnover decision process can be simplified as follows:

1) Evaluation of existing job
2) Experience job satisfaction and dissatisfaction
3) Thinking of quitting due to dissatisfaction
4) Evaluation of the expected utility of search and of the cost of quitting
5) Intention to search for alternatives
6) Search for alternatives
7) Evaluate alternatives
8) Comparison of alternatives versus present job
9) Intention to leave
10) Actual turnover behavior [ref.30 p.392]

The decision to participation or withdraw may be looked upon as a process of balancing received or potential rewards

with desired expectations. During the turnover decision process, numerous factors influence the decision to stay or leave.

Wernimont (1966) tried to test the Herzberg findings that the five major factors related to the doing of the job itself (Recognition, Achievement, Work Itself, Advancement, and Responsibility) are the primary determiners of job satisfaction, and that five major factors related to the job environment (Salary, Company Policies and Practices, Technical Aspects of Supervision, Interpersonal Relations in Supervision, and Working Conditions) cause job dissatisfaction. The job related factors have been designated "intrinsic" factors, while the environment related factors have been named "extrinsic" factors. As a result, satisfaction with the job can be due to high levels of satisfaction with intrinsic factors, and dissatisfaction can be due to low levels of satisfaction with intrinsic factors. Extrinsic factors cause both satisfaction and dissatisfaction less readily than do the intrinsic factors, but individuals are more likely to say they have bad or dissatisfied feelings about these extrinsic factors. [ref.31]

Flowers and Hughes (1973) focused on the reason for employee staying. They explained this in terms of "inertia". Employees tend to remain with a company until some force causes them to leave. They showed that this inertia is affected by two

relevant factors within the company and two relevant factors outside the company. Inner factors are job satisfaction and environmental factors. Job satisfaction includes achievement, recognition, responsibility, growth, and other matters associated with the motivation of the individual in his job. Environmental factors are work rules, facilities, coffee breaks, benefits, wages, and the like. Outside factors are outside job opportunities and nonwork factors such as financial responsibilities, family ties, friendships, and community relations. They found that employees who like their job tend to stay. Very dissatisfied employees continue to stay because of financial considerations, family responsibilities, lack of outside opportunities, age, and to some extent, corporate enculturation (they wouldn't like to look for a job or have to learn new policies). [ref.14]

Lee and Wilbur (1985) investigated the relationship of age to job satisfaction by using 1,707 public employees in the United States. The results showed that job satisfaction increased with age. Younger employees were less satisfied overall with their jobs, but especially with the intrinsic characteristics (ability utilization, work challenge, creativity, responsibility, and variety) of the work. Older employees were more satisfied with the extrinsic characteristics

(promotion, compensation, and working conditions) than were younger employees. [ref.22]

Based on the analysis of the National Longitudinal Youth Survey for 1980, Burk (1984) argued that patriotism is an important factor affecting the quality and composition of the all-volunteer force. According to his study, those who are motivated to serve for patriotic reasons serve more effectively than those who enlist for other reasons. And, those who are promoted to higher ranks tend by a large margin to be drawn from those who report having enlisted to serve their country. [ref.9 pp.238-240]

Faris (1984) studied the economic and noneconomic factors affecting personnel recruitment and retention on the all volunteer force (AVF) by using the 1976 Department of Defense Personnel Survey. He classified male O1/O2 officers into "stayers" and "leavers"[1]. He found that for leavers, education at entry as well as father's military experience has a substantial negative effect; that is, junior-grade officers who enter with a college degree are more likely to decide to leave. The noneconomic aspects of the military has a strong positive effect and officers whose fathers served as officers for less

---

[1] stayers: those who are intend to stay in the military.
leavers: those who are intend to leave the military.

than four years are more likely to leave the military. Satisfaction with pay and benefits has no significant effect. For stayers, education at entry has equally strong effect; those who are relatively satisfied with the noneconomic aspects of the military and those who entered with less than a college degree are the most likely to be career oriented. Satisfaction with pay and benefits has a significant effect.

The process of retention of junior officers and the formation of career decisions are relatively unaffected by the economic factors of pay, benefits, and marketability. Most career-oriented officers make their decision to remain in the military despite perceptions of economic loss. Much more significant in determining career plans are the satisfactions of the military work role, and the relationships with co-workers and supervisors. That is, a combination of noneconomic sources of satisfaction / dissatis-faction has a strong effect whereas satisfaction with pay and benefits has no significant effect. [ref.13]

Gary Becker distinguished conceptually between two types of training: general training that increases an individual's productivity to many employers equally, and specific training that increases an individual's productivity only at the firm in which he or she is currently employed. [ref.4] Workers with

general skills are more likely to quit after training and seek work elsewhere than those with specific skills [ref.12]. In the Army, the officers with scientific training (such as in engineering, science, and the medical field) are classified as general skill officers. And the officers in non-combat arms are also classified as general skill officers [ref.12, 27]. The fact that the retention rates of Combat Arms and Combat Support branches were markedly higher than the rate for Combat Service Support supports this theory. [ref.19]

Porter and Steers (1973), in a review of studies conducted by other researchers, found that overall job satisfaction was consistently and inversely related to turnover. More specifically, in an effort to break down the global concept of job satisfaction -the sum total of an individual's met expectations on the job, they grouped various factors in the work situation into four categories according to their relationship to turnover behavior: (a) organization-wide factors, (b) immediate work environmental factors, (c) job-related factors, and (d) personal factors.

Organization-wide factors can be defined as those variables affecting the individual that are primarily determined by persons or events external to the immediate work group. Pay, promotion and organizational size are included in this group.

They found satisfaction with pay and promotion based on the perceived equity of rewards to be negatively associated with turnover, and organization size to be weakly related to turnover.

Immediate work environment factors center around the immediate work situation in which the employee finds himself. Factors to be considered here include supervisory style, work unit size and the nature of peer group interaction. They found supervisory style and peer group interaction to be negatively related to turnover, while work unit size was found to be positively related.

Job content factors are the duties and activities required for the successful performance of a job. Turnover is affected by four factors of this type: (a) the overall reaction to job content, (b) task repetitiveness, (c) job autonomy and responsibility, and (d) role clarity. Task repetitiveness was found to be positively and the others negatively related to turnover.

Personal factors are unique to the individual and include age, tenure, similarity of job with vocational interest, personality and family consideration. Age, tenure, and congruence of job with vocational interests appear to be strongly and negatively related to turnover whereas extreme

personality characteristics, family size and family responsibilities are generally found to be positively related to turnover. [ref.26]

Arnold and Feldman (1982) undertook a multivariate analysis of the turnover process with a sample of 654 members of the accounting profession. The following variables were measured: demographic variables, tenure, cognitive/affective orientation to current position (including multiple measures of job satisfaction and organizational commitment), perceived job security, intention to search for an alternative position, perceived existence of alternative positions, and intention to change positions. The results showed that turnover was significantly influenced by age, tenure in the organization, overall job satisfaction, organizational commitment, perceived job security, and intention to search for an alternative position. [ref.2]

Bluedorn (1979) studied the causes of turnover in American military organizations by using data for U.S. Army officers collected in 1964. As a result of his study, five propositions were developed as factors affecting turnover. Satisfaction[2] and

---

[2] Satisfaction stands for overall satisfaction with membership in the organization.

pay[3] have a negative effect on turnover and environmental push,[4] environmental pull,[5] and organizational control[6] have a positive effect. [ref.7]

Bluedorn (1982) developed a model of turnover process which synthesized three turnover models: those of Price(1977) and Mobley(1977) and the model which had been developed around the organizational commitment variable(1974). The results showed that the most important determinants of turnover were environmental opportunity, routinization, age, and length of service. [ref. 6]

Reed (1985) studied workers' quit behavior to determine the effects of nonpecuniary job attributes with data from the National Longitudinal Survey, Youth Cohort, 1979-1980. Some of the results showed that for young males, the opportunity to use their most valued skills and job autonomy appear to contribute

---

[3] Pay refers to money, fringe benefits and other commodities of financial value which organizations can exchange with members in return for their participation in the system.

[4] Environmental push is the extent to which organization members will be negatively sanctioned for failing to become members of specific organization.

[5] Environmental pull refers to both the number and quality of unoccupied roles in the organization's environment.

[6] Organizational control refers to one subset of set of all type of social control. i.e., centralization, formalization.

significantly to workers' marginal utilities. Psychological job characteristics such as opportunity to use one's valued skills, job significance, completeness of job tasks, and job autonomy all appear to be significant economic job attributes. [ref.28]

Rashmi Lal (1988) undertook a study of the quit/stay decisions of junior Army officers using data from 1985 DOD Survey of Officers and Enlisted Personnel. Rashmi Lal estimated the number of years an officer intends to serve in the Army and satisfaction of an officer with military life. He concluded that the two most important factors which affected intentions of officers to serve in the Army were satisfaction with military life and chances of promotion. Regular monetary compensation affected their decisions in a positive though indirect way, via their satisfaction with military life. Important factors contributing to satisfaction with military life were officers' positive perceptions about military life and their intention to serve for a long time period. Working environmental factors are also important along with monetary factors, retirement benefits and chances of promotion. Working conditions, satisfaction with co-workers and their friendship, unit morale, personal freedom, job security, training facilities and satisfaction with the current job had a significant positive influence on satisfaction with military life. [ref.27]

Brunner (1971) and Chow and Polich (1980) studied the relationship between intention to reenlist and actual reenlistment. Brunner found a reasonably good match between survey intention and later behavior by using Air Force personnel. Chow and Polich retested that finding with the 1976 DOD survey. The results showed a close match between intentions and outcomes. Among respondents who said that their chances of reenlisting were .10 or less, only 5 percent did reenlist; and among those who said their probabilities were .90 or greater, 89 percent reenlisted. The actual reenlistment rate was close enough to the intention level to be valuable for aggregate prediction. In general, intentions are strong predictors of actual behavior. [ref.10]

In reviewing these studies, there appear to be numerous factors which affect the career decision. These factors can be grouped into four broad categories: demographic, intrinsic, extrinsic, and environmental factors. This study is centered around these categories in an effort to determine which factors are most influential in the career decision process.

III. DATA AND METHODOLOGY

A. DATA

The data used in this thesis are the Army portion of the 1985 DOD Officers and Enlisted Personnel Survey Member File. The 1985 DOD Survey of members has been matched with personnel records to obtain information on subsequent staying behavior of respondents.

The 1985 DOD Survey was administered by the Defense Manpower Data Center (DMDC) to active-duty (AD) military members who had served four or more months by 30 September, 1984 and still remained by the time the questionnaire was distributed. The survey was administered to a world-wide sample of approximately 124,600 active-duty military members in order to establish a cross sectional data base. Approximately, 5,000 Army officers, 65.2 % of eligible members, responded the survey. [ref.11]

The Survey consisted of nine major sections;

I. Military Information asking about the member's military characteristics.

II. Present and Past Locations asking about PCS Moves and environmental living conditions.

III. Reenlistment/Career Intent probed the respondent's future orientation.

IV. Individual and Family Characteristics focused on basic demographic facts.

V. Dependents asked about the number and ages of dependents; whether or not dependents were handicapped.

VI. Military Compensation, benefits and Programs asked about the benefits being received as well as a broad range of family programs.

VII. Civilian Labor Force Experience focused on civilian work experience and earnings.

VIII. Family Resources focused on non-wage or salary sources of earnings.

IX. Military Life questioned about the member's attitude toward various aspects of military life. [ref.11]

A subset of the Army officers surveyed is used for this thesis. The analysis is restricted to junior male Army officers. Junior Army officers are defined as those with less than 10 years of service (YOS) and younger than 40 years. Data were available for 1,500 junior male Army officers under the age of 40. This is the sample size for the analysis.

In this thesis, aggregation bias is reduced by estimating separate models for sub-groups of officers. Officers are classified as early juniors or late juniors. Early juniors (EJ) had served

less than 4 YOS, late juniors (LJ) had served between 4 YOS and 10 YOS.

The EJ stage is a period of getting away from home and establishing oneself in the adult world. In EJ stage, members take basic specialty training to get basic military knowledge and develop their military character, learning how to work, deal with people and getting a sense of identity in the military organization [ref.17]. If they are successfully accustomed to military organization, they would be likely to remain, otherwise, they would move to another organization.

The LJ stage is a period of assessing one's career against goals and ambitions. Most members are beyond their initial obligation term[1]. In the LJ stage, members continue to develop their primary specialty and develop an alternate specialty. They grow their professional military knowledge. They evaluate themselves with respect to needs, motives, values and talents developed through work experiences to make sure that they are on the right path toward their life goal. LJ members are more likely to settle down and advance toward a stable relationship with the organization. [ref.17]

---

[1]. Academy: 6 years, OCS/OTS: 3 years, Regular ROTC: 3 years, Scholarship ROTC: 4 years.

The factors providing insight into career behavior for EJ officers may not be the same as those important for LJ officers. The sample size for EJ respondents is 624 and that for LJ respondents is 884. Table 1 shows information about the sample.

B. METHODOLOGY

1. Conceptual Model

Figure 3 proposes a conceptual model which shows the hypothesized interrelationships between career orientation (defined as intention to stay in the Army for at least 20 years) and affective factors. The variables in the conceptual model are grouped into four broad categories. These are :

a) Demographic and personal factors - information about an individual such as age, race, length of service.

b) Environmental factors - factors which are not directly related to the job but influence the career decision such as civilian job opportunity and financial obligations.

c) Intrinsic factors - factors which measure the mental satisfaction/dissatisfaction with the job or attitudes towards the job such as patriotism and met expectations.

Table 1: Characteristics of male Army junior officers in the 1985 DOD Enlisted/Officer Survey

Classification	Early Junior	Late Junior
Numbers of officers	624	884
Average age(years)	25.9	30.2
Military occupation(%)		
Combat arms	50.3	41.1
non-combat arms	49.7	58.9
Commissioning sources(%)		
Academy	15.0	14.7
Regular ROTC	32.2	35.6
Scholar ROTC	33.2	25.4
OCS/OTS	5.5	9.1
Others	14.1	15.2
% of officers with master degree and above	22.5	27.7
% white	84.1	83.9
% of officers with intention to serve at least 20 years	66.4	79.9
% of officers satisfied with Army life[a]	72.8	77.3
Average overseas tour (months)	9.9	26.3
Average total income($) in 1984	23,300	33,800

a. Those who responded "very satisfied", "satisfied", "somewhat satisfied" to the question(O110E106) fall into this category.

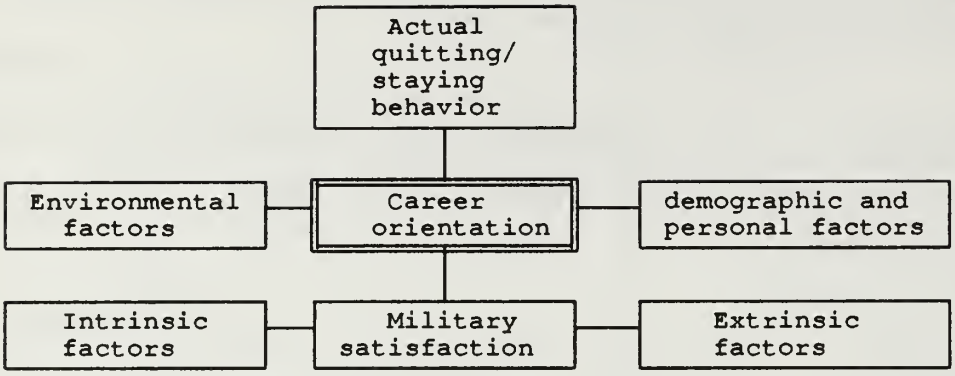


Figure 3. Conceptual Model of Career Orientation

d) Extrinsic factors - factors which measure the financial or the environmental satisfaction/dissatisfaction with the job such as pay, promotion opportunities and undesirable location.

Sequential steps are taken to reach the staying or quitting behavior. The military satisfaction factors, which are directly related to the job, play a central role in the career orientation process. Dissatisfaction leads to job search which leads to an intent to quit or stay which leads to the individual's actual staying or quitting behavior. During the career decision process, career orientation is determined by synthesizing the effects of factors which influence the career decision. Some intrinsic/ extrinsic factors influence the decision directly as well as through their effect on military satisfaction. Each individual's personality and background differentiate the net effect of each

category on career orientation by providing criteria based on his personality and background. [ref. 3, 26, 30, 32]

Logistic regression analysis is used to estimate the impact of the explanatory variables and to identify their relative influence on the career decision. The logistic model is suitable for the analysis of complex sample survey data when the dependent variable is binary. The dependent variable in the model is the careerist/non-careerist[2] decision.

The logit model is the (cumulative) logistic distribution function where the equation is:

$$P_i = \frac{1}{1 + e^{-(a + \Sigma bj * Xij)}}$$

P_i is the probability of member i having career orientation and e is the familiar base of the natural logarithm. X_{ij} is the value of the j^{th} factor affecting the career orientation of the i^{th} service member. Logit analysis will provide estimates of the parameters ("a" and "b_j"s). [ref.16]

Data are analyzed using the LOGIST procedure of SAS (a statistical analysis software package) which fits the logistic

---

[2]. Careerist: one who intends to remain for 20 or more years of service.
Non-careerist: one who intends to leave prior to 20 years of service.

multiple regression model to a single binary(0-1) dependent variable.

2. Variables

a. Dependent Variable

The dependent variable "Career Orientation (CO)" used in this thesis is constructed from the question (027):

"When you finally leave the military, how many total years of service do you expect to have?"

Responses to this question are reported as a continuous variable indicating the number of years an officer intends to serve in the Army. This thesis concerns the career orientations of Army officers, and therefore this continuous variable was dichotomized as careerist or non-careerist. The twenty-year point was used as the criterion to separate careerists from non-careerists in the sample because retirees can receive full retirement benefits after 20 YOS.

b. Explanatory Variables

The variables for the multivariate regression model of career orientation were selected based on the literature review cited above and fall into one of four categories: demographic and personal, environmental, intrinsic, and extrinsic factors.

Appendix A shows the results of a crosstabulation analysis of these candidate independent variables with the dependent variable CO. This table describes the percentage of junior male Army officers who responded that they intended to stay for at least twenty years by the attributes selected based on the literature review. A Chi-square test was computed to test the null hypothesis of no association between each variables and CO. This value stands for a statistical significance level of the decision rule. This value tends to be close to zero when there is association between two variables. The results came from the crosstabulation analysis.

Factor analysis [see Appendix B[3]] was also used to reduce the number of candidate variables. Factor analysis is a statistical procedure for uncovering the order, pattern, or regularity in data. The common objective of factor analysis is to represent a set of variables in terms of a smaller number of hypothetical variables.

When existing packaged computer programs are used for factor solutions, the factor analysis procedure has four basic steps. The first step is preparing a covariance matrix for the relationship among variables. The second step is the extraction of the initial factors that can adequately explain the observed correlations among the variables. The most commonly used procedure of determining the number of initial factors to be extracted is a rule of thumb - this

---

[3] Appendix B contains a summary of factor analysis results.

rule is known either as the Kaiser or eigenvalue criterion. The third step is the rotation to a terminal solution and interpretation. Rotation makes the initial factor solution simpler and more interpretable. A method of orthogonal rotation can be employed by using the varimax rotation technique. The fourth step is the construction of factor scales and their use in further analysis. Most factor analysis computer programs produce coefficients with which to combine the observed variables to represent the underlying factor, and some even create such scales for the user. [ref.20]

(1) Demographic and personal variables

The variables selected for this category are years of service (06E6), military occupation(00CC1), source of commissioning(010), age(036E35), race(039E38), diploma(046), marital status (051E48) and family size (067E64).

Length of service (LOS) is number of months on active duty. Responses are limited to those officers who served for up to ten years of active service. Increased LOS is expected to be positively related to propensity to remain. [ref.26]

Military occupation (NCBT) is a dummy variable which equals one for non-combat arms officers and zero for combat arms

officers[4]. The intentions to serve are expected to be affected by whether the officer is in combat arms or not. Non-combat officers have more general skills and would be expected to have better civilian job alternatives. [ref.29]

Commissioning source uses two dummy variables: reserve officer training corps (ROTC) and others (OTHERS). Academy is the base case. ROTC was created by combining reserve officer training corps (RROTC) with scholarship reserve officer training corps (SROTC) because RROTC is highly correlated to SROTC (Pearson correlation coefficient: .451). OTHERS includes limited duty officer program, OCS/OTS, aviation officer candidate, aviation cadet, direct appointment from civilian status, reserve officer candidate, platoon leaders course, commissioned from health professor scholar program, medical specialist program, warrant officer program and other. Academy graduates are expected to have a higher propensity to remain in the Army than ROTC or OTHERS because of the rigorous competition required for entry and graduation as well as greater familiarity with military way of life through Academy life.

Age is simply the respondent's age at his last birthday. It is a continuous variable with a maximum limit set at less than or

---

[4]. Non-combat arms: intelligence, engineering and maintenance, scientific and professional, medical, administrative, supply, procurement, non- occupational.
Combat arms: general, executives, N.E.C., tactical operations.

equal to 40 years. This limitation was imposed for a more homogenous sample. Age is expected to be positively related to career orientation, because older workers making job changes reap smaller wage gains than younger workers and often suffer wage losses. In addition, older workers confront a smaller set of alternative job opportunities than younger workers [ref.20]. Age, however, is eliminated from the analysis due to its high correlation (.638) with LOS.

Race is a dummy variable which equals one for white officers and zero for otherwise. The sample of junior male Army officers was comprised of 84% whites, 11% blacks and others i.e oriental, indian. Crosstabulation of individual racial groups with the career decision variable showed higher career intention(77%) among black person, however, the segment of the sample was very small and therefore blacks were combined with other minority racial groups.

Diploma is a dummy variable which equals one for either a master's or doctoral degree and zero otherwise. Military service provides members with significant educational opportunities. Although much of this advanced education is in specialized and technical areas related to military tactics, technology, and administration, some of it also falls within the domains of more general social, scientific, and historical education [ref.8]. These advanced educational experiences are expected to influence leaving

the Army because of the increased availability of alternative opportunities.

Marital status (MARI) is represented by two dummy variables: married without dependents (MWOD) and married with dependents (MWD) while unmarried (UNMARI) is the base case. Marital status and the number of dependents are combined to create this variable. Widowed, divorced, single and never married are grouped into unmarried and others into married. UNMARI was created by combining single without dependents (SWOD) with single with dependents (SWD) because the portion of SWD is very small (1.79% of the sample). A married person is more likely to remain in the Army than an unmarried person. The number of dependents is an important influence on the needs and requirements placed on an individual as a result of being responsible for a family [ref.26]. It is hypothesized that MWD officers would display a higher propensity to remain in the Army than UNMARI or MWD officers.

(2) Environmental factors

The variables selected for this category are financial obligations(0102E98), total income(Income 2), civilian job opportunities(096E92), the family satisfaction factor and the job environmental factor.

Financial obligations (DEBT) provides information on an individual's total outstanding debt. The DMDC survey asked for

discrete responses to an ascending scale of debt ranging from $ 0 to over $ 15,000. DEBT is expected to be related positively to CO decision. [ref.26]

Total income (TOTINC) was computed by DMDC considering base pay of both an individual and his/her spouse, BAS (Basic Allowance for Subsistence), BAQ (Basic Allowance for Quarters), RENTAL (charge for inadequate government quarter), and VHA (Variable Housing Allowance) data from the 8503 JUMPS (Joint Uniform Military Pay Schedule) file. TOTINC is a continuous variable. It is hypothesized that officers with a high level of total income would be more likely to leave the Army than those with a lower level of total income. [ref.11, 23]

The possibility of finding a good civilian job (CIVILJOB) reflects an individual's perception of civilian job opportunities without actual searching for an alternative position. CIVILJOB is a discrete variable ranging from 1 to 11 with one equal to "no chance" and 11 for "certain". Models discussed in the literature review suggest that turnover behavior is strongly related to the intention to search for an alternative position which is a precursor to actual quitting. So, this variable is hypothesized to be related negatively to career orientation.

Family satisfaction (FAMSAT) was constructed using factor analysis [see Appendix B]. The variables which loaded heavily on this factor were;

Variable	Factor score coefficient
Family environment (O109105F)	.103
Medical care (O109105P)	.442
Dental care (O109105Q)	.385
Commissary services (O109105R)	.106

The job environmental satisfaction factor (JES) was constructed using the factor analysis [see Appendix B]. The variables which loaded heavily on this factor were;

Variable	Factor score coefficient
Assignment stability (O109105D)	.301
Frequency of moves (O109105G)	.616

Job offer(O94E90) and Job search(O95E91) were initially considered as variables in this category, but were eliminated because the number of members who responded to the question of job offer or job search with "yes" is relatively small.

(3) Intrinsic Factors

The variables selected for this category are the intrinsic military satisfaction factor and met expectation (O109104A). The intrinsic military satisfaction factor (IMS) was constructed using factor analysis [see Appendix B]. The variables which loaded heavily on this factor were;

Variable	Factor score coefficient
Personal freedom (O109105A)	.120
Acquaintances/friendship (O109105B)	.144
Workgroup/co-workers (O109105C)	.174
Opportunity to serve one's country (O109105I)	.108
Satisfaction with current job (O109105J)	.234
Promotion opportunities (O109105K)	.099
Job training/in-service education (O109105L)	.175
Job security (O109105M)	.095
Working/environmental conditions (O109105N)	.206

Met expectation (METEXP) represents to what extent life in the military is as members expected it to be. The stronger the perception that expectations have been met, the longer an officer

is likely remain in the Army. METEXP is expected to be positively related to the CO decision.

(4) Extrinsic Factors

The variables selected for this category are satisfaction with pay and allowances(o109105e), retirement benefits(O109105M) and undesirable location (O30E29).

Pay and allowances (PAYALL) are current financial rewards which members receive for their participation in the organization and for their performance. The formation of career decisions of junior officers is expected to be relatively unaffected by the economic factors of pay and allowances. The literature review showed that most career-orientationed officers made their decision to remain in the military despite perceptions of economic loss. In this study, correlation with career orientation is very low but positive while correlation with several other independent variables in higher and negative [see Appendix C]. This results in an "incorrect" sign of the regression coefficient for this variable. So PAYALL is eliminated from the analysis.

Retirement benefits (RETBEN) are financial rewards[5] which the retiree receives after completion of 20 years of service. RETBEN

---

[5] The retiree receives 50 percent of the basic pay associated with the highest grade achieved; for every year after 20 the pension parameter is augmented by 2 1/2 percentage points up to a maximum of 75 percent at 30 years of service.

is a discrete variable ranging from 1 to 5 with one equal to "very dissatisfied" and five equal "very satisfied". If the officer voluntarily leaves before completing 20 years of service, no retirement benefits are received [ref.15]. RETBEN is expected to be positively related to career orientation.

Undesirable location (UNDLOC), which represents the chance of next tour of duty to an undesirable military location, is a discrete variable ranging from 1 to 11 with one equal to "no chance" and eleven equal to "certain". UNDLOC is expected to have a negative influence on career orientation.

The variables included in final model are listed in Table 2.

Table 2: The Variables Included in Final Model

Variable Name	Description	Survey Variable
<u>Demographic and Personal Factors</u>		
LOS	Length of service	06E6
NCBT	Non-combat arms	00CC1
ROTC	Reserve officer training corps	010
OTHERS	OCS/OCTS, etc.	010
RACE	Whites, other	039E38
DIPLOMA	Advanced education (MA/MS, PHD)	046
MWD	Married with dependent	051E48 067E64

MWOD	Married without dependent	O51E48 O67E64
Environmental Factors		
DEBT	Individual's total outstanding debt	O102E98
TOTINC	Pay of both an individual and his/her spouse, other income	INCOME 2
CIVILJOB	Possibility of finding a good civilian job	O96E92
FAMSAT	Family satisfaction factor	
JES	Job environmental satisfaction factor	
Intrinsic		
IMS	Intrinsic military satisfaction factor	
METEXP	Met expectation	108104A
Extrinsic		
RETBEN	Retirement benefits	O109105H
UNDLOC	Undesirable military location	O30E29

IV. ANALYSIS

A. Results of the Career Orientation Model

A logit analysis was constructed to explain the career orientation behavior of the early junior(EJ) and late junior(LJ) groups of male Army officers. This analysis shows a relationship between the years of service which members expect to stay in the Army and other explanatory variables. Table 3 describes the results of the career orientation model.

The results indicate that demographic factors and the intrinsic military satisfaction factor are likely to have strong effects on the career orientation for both early and late junior group. More specifically, length of service, ROTC graduate status, the intrinsic military factor and retirement benefits have positive regression coefficients and are statistically significant at the .1 level.

It is not surprising to find that the length of service (LOS) has a positive effect on the career intentions of officers in both early and late junior groups. The coefficient for this variable is statistically significant at the .01 level for both groups. This result indicates that the more years of service an officer has completed the stronger is his

Table 3 : Results of the Career Orientation Model

Variables	Early Junior Coefficient		STD.Error	Late Junior Coefficient		STD.Error
Intercept	-5.997	***	1.501	-5.885	***	1.214
LOS	.035	***	.006	.039	***	.005
NCBT	-.676	**	.313	.135		.257
ROTC	1.231	***	.400	.870	***	.314
OTHERS	1.047	**	.506	.528		.425
RACE	-.280		.378	.716	**	.365
DIPLOMA	-.917	**	.400	-.393		.342
MWD	.651	*	.393	.451		.319
MWOD	.184		.395	.512		.328
DEBT	-.045		.085	.052		.064
TOTINC	-.006		.012	-.020	*	.011
CIVILJOB	.057		.077	-.041		.066
FAMSAT	.106		.213	.316	**	.153
JES	.038		.171	.187		.151
IMS	1.081	***	.207	.638	***	.166
METEXP	-.063		.179	.221		.145
RETBEN	.432	**	.183	.217		.136
UNDLOC	-.080		.057	-.072		.048
Sample cases (n)	423			596		

*** Chi-square significance at the .01 level
** Chi-square significance at the .05 level
* Chi-square significance at the .10 level

propensity to stay. This may be explained by the fact that an officer with more years of service may have a good job-match and is getting closer to retirement.

The coefficient for officers in non-combat arms(NCBT) is negative and statistically significant at the .05 level for the EJ group. For the LJ group, however, the coefficient for

this variable is positive and not statistically significant.This indicates that EJ officers in combat arms intend to serve in the Army for a longer time period compared to the officers in non-combat arms while LJ officers in combat arms are less likely to be careerists.

The two variables ROTC and OTHERS measure the effect of the source of commission of officers on their intentions to serve in the Army. The coefficient of ROTC is positive and statistically significant at the .01 level for both groups. The coefficient of OTHERS is also positive for both groups but not statistically significant for the late junior group. These results indicate that academy graduates are less likely to be careerists than other officers. This was unexpected. This may be explained by the fact that since academy graduates are "screened and selected" prior to entering the academy, they may have more civilian job opportunities since they were the "cream of the crop".

The coefficient for Race is negative and not statistically significant for the EJ group. But the coefficient is positive and statistically significant at the .05 level the LJ group. The positive relationship for the LJ group implies that white LJ officers intend to serve in the Army for a shorter term. It may be that minority officers have decided to remain for

another term, they view their military versus civilian careers as relatively more satisfactory than their white military peers.

The coefficient of advanced education (DIPLOMA) is negative and statistically significant at the .01 level for the EJ group but not significant for the LJ group. This indicates that officers with a master's degree and above are likely to serve for fewer years. This may be explained by the fact that EJ officers with more education may have more civilian opportunities. But advanced education does not affect LJ officers significantly. If advanced education is obtained later in an officer's career, his relative military/civilian payoff is not as large as for those officers who obtained their advanced education earlier in their career.

Married officers in both the EJ and LJ groups are more likely to remain in the Army than unmarried officers. Of married officers, those in the EJ group with dependents have a higher propensity to be careerists than officers without dependents as would be expected but there is no difference between officers with dependents and officers without dependents in the LJ group. The coefficient for married with dependents is significant at the .1 level but other

coefficients for marital status are not statistically significant.

For EJ group, none of the coefficients for environmental factors proved to be significant at the .1 level and their magnitudes are small. The effect of environmental factors appears to be quite small. For the LJ group, however, total income and the family satisfaction factor have significant effects. Total income has a negative effect and the family satisfaction factor has a strong positive effect. The results support the hypothesis that officers with a high level of total income would be more likely to leave the Army than those with a lower level of total income although the magnitudes are small. This implies that an officer with a spouse who has a high level of income is likely to leave the Army than those with a spouse who has lower income. The results also indicate that the package of benefits for family such as family environment, medical/dental care, commissary services are seen as crucial by officers within the LJ group.

The job environmental satisfaction (JES) factor combined responses to questions addressing satisfaction with assignment stability and frequency of moves. The coefficient for the JES factor is positive and not statistically significant for either group. This indicates that officers who are satisfied

with the job environmental factor are more likely to be careerists but are not affected significantly.

Perhaps surprisingly, the probability of finding a good civilian job does not influence the career decision for either the EJ or the LJ group. It may be the case that both stayers and leavers have great confidence in finding a good civilian job based on the latent faculties accumulated through their military job.

Financial obligation does not influence the career decision significantly for either the EJ or the LJ group. However, interestingly, the coefficient for debt is negative for EJ officers and positive for LJ officers. This result may indicate that EJ officers with substantial non-mortgage debt are likely to leave the Army to pay back the debt, based on their expectation of higher pay from a civilian job. T h e intrinsic military satisfaction factor(IMS) combined responses to questions addressing satisfaction with personal freedom, acquaintances/ friendship, workgroup/co-workers, opportunity to serve one's country, satisfaction with current job, promotion opportunities, job training/in-service education, job security and working/environmental conditions. The coefficient for this variable is significant at the .01 level. This variable has a strong positive influence on career

orientation. The more satisfied officers are with IMS, the longer they want to remain in the Army. This may be explained by the theory that an intrinsically motivated person will be more satisfied and committed to a task because of the inherent pleasure derived from engaging in this intrinsic behavior.

All coefficients for extrinsic factors except retirement benefits for the EJ group are not statistically significant and, as well, the magnitudes are small.

The package of retirement benefits has a strong and significant effect. The coefficient for retirement benefits is positive and statistically significant at the .05 level for the EJ group but not statistically significant for the LJ group. This indicates that the package of retirement benefits plays an important role as an attractive incentive for early junior officers to be careerists while LJ officers are less likely to be affected. The reason for not being significant for the LJ group may be the wide variation of respondents.

The coefficient for undesirable location(UNDLOC) is negative for both EJ and LJ officers. This indicates that officers who feel sure that the next tour will be in an undesirable location are more likely to leave the Army.

B. Validation of the Career Orientation Model

The predicted career intentions which were determined from the model were compared to the reported career intentions as expressed by the respondents in the 1985 DOD survey. Table 4 describes the comparisons for each group and the overall accuracy of the model. The career orientation model correctly classified 84.4 percent of the careerists/non-careerists for the early junior group and 82.7 percent for the late junior group.

C. Intention to Stay versus Actual Behavior

This section focuses on members' actual behavior within 3 years after survey date. This study found a reasonably good match between survey intentions and later behavior. Table 4 matches actual years served beyond survey date as of December 1988 against intentions expressed in the survey. Actual years served beyond survey date can be calculated by subtracting survey date from enddate. Enddate is the date on which a member left active duty. Intended years of service beyond survey date can be calculated by subtracting current years of service (O6E6) from total expected years of service (O27E26). The results indicate that intentions provide a very good approximation of the probability of actual leaving/actual staying.

Table 4: Actual versus Predicted Career Orientation

Early Junior

		Predicted		
		non-careerist	careerist	total
True	non-careerist	12.29% (52)	11.11% (47)	23.40% (99)
	careerist	4.49% (19)	72.11% (305)	76.60% (324)
	total	16.78% (71)	83.22% (352)	(423)

correct : 84.4 %

Late Junior

		Predicted		
		non-careerist	careerist	sample
True	non-careerist	13.42% (80)	11.91% (75)	25.33% (151)
	careerist	5.37% (32)	69.30% (413)	74.67% (445)
	total	18.79% (112)	81.21% (484)	(596)

correct : 82.7 %

How accurate are such intentions as predictors of future behavior? The results indicate that 70% officers who said they would stay only one year actually left during the next year and 86% actually left during the next three years. Of those who planed to stay twenty year or more, four percent left during the next year and 89 percent actually remained beyond three years after survey date. Data are not available for actual staying beyond four years, so that a match of the intentions and actual behavior can not be determined for other lengths of intended services.

For all levels of staying intention, however, the actual leave/stay behavior corresponded closely to the intention expressed by survey respondents as shown in Table 5. Higher frequency of actual turnover following intentions occurred within years immediately before and after the intended year with the highest frequency in the intended year. Officers who intended to stay four or more years had the lowest leaving rate within the three years after survey date. This means that expressed intentions may be used with reasonable confidence that the intentions are valid indicators of later behavior. While expressed intentions are strong predictors of actual behavior, it is impossible to foresee changes in the policy,

working conditions, or demographic factors which may occur after completion of the survey questionnaire.

Nevertheless, the closeness of the match between intentions and actual behavior implies that expressed intentions of members can be used as a criterion with reasonable confidence. Additionally, the results of career orientation model using expected total years of service as a dependent variable can also be accepted with reasonable confidence. However, it is not clear that the results based on the 1985 policy are appropriate if policy has changed.

Table 5: Staying Intention Compared with Actual Behavior[a]
(Army Junior Male Officers)

SI[b]	Sample	Actual Behavior[c]				
		Leave(%)[d]				Stay(%)[e]
(year)	(N)	Sum[f]	1	2	3	4 or more
1	96	85.92	69.79	11.46	4.17	14.08
2	105	54.29	7.62	40.00	6.67	45.71
3	89	52.81	12.36	10.11	30.34	47.19
4-5	93	21.51	7.53	3.23	10.75	78.49
6-10	79	16.45	5.06	7.59	3.80	83.55
11-15	428	16.59	6.31	4.67	5.61	83.41
16-20	364	16.48	3.57	5.49	7.42	83.52
over20	220	10.91	4.09	5.00	1.82	89.09

a. Intended years of service beyond survey date(1985) matched with actual years served as of December 1988.
b. Staying intention = total expected years of service - current years of service
c. Actual behavior = Enddate - survey date
d. Officers who left within 3 years after survey date.
e. Officer who stayed beyond 3 years after survey date.
f. Total officers who left within 3 years after survey date.

V. CONCLUSIONS

A. Major Findings

This thesis developed a career orientation model and assessed the effects of factors which influence the career orientation of junior male Army officers. A multivariate logit regression model was estimated utilizing characteristics which were classified into demographic/personal, environmental, intrinsic or extrinsic category, to determine their relative importance in career decision.

The results show that early junior(EJ) officers and late junior(LJ) officers have different characteristics which affect career orientation. For the EJ group, demographic factors have strong effects; white, non-academy graduates, married officers, officers in combat arms and officers with more years of service are more likely to be career oriented. The intrinsic military satisfaction (IMS) factor, a combination of non-economic sources of satisfaction or dissatisfaction has a much stronger effect; those who are relatively satisfied with these features of military service are the most likely to be career oriented. Environmental factors and extrinsic factors except retirement benefits have

no significant effect. The package of retirement benefits has a strong and significant effect; that is, those who are satisfied with retirement benefits are more likely to be career oriented.

For the LJ group, demographic factors and the intrinsic satisfaction factor have very strong effects as they do for the EJ group. A difference from the EJ group is that non-white LJs are more likely to stay longer in the Army. Non-whites, non-academy graduates, married officers, officers in non-combat arms and officers with more years of service are more likely to be career oriented. Officers motivated by intrinsic military satisfaction factors intend to serve in the Army for a longer time period. Environmental factors have strong and significant effects compared to those for the EJ group. Those who had a higher score on the family satisfaction factor which includes family environment, medical/dental care and commissary services intend to serve in the Army for a longer time.

For both the EJ and the LJ group, officers with a master's degree or above, officers with a higher total income and officers with an undesirable military location for the next tour are more likely to leave the Army.

B. Policy Implications

The results of this study can be used to guide personnel managers and/or policy makers in maintaining a targeted strength of junior officers. The results of the career orientation model show that commissioning sources and the intrinsic military satisfaction factor are both major influences on the career orientation of both EJ and LJ officers.

The fact that the academy graduates are less likely to be careerists compared to non-academy officers has important policy implications because the cost of an academy graduate is much higher than that of ROTC or other commissioning sources. The higher costs of academy graduates can be recouped by longer years of service. If academy graduates leave the Army earlier than non-academy officers, it would not be cost effective to use this commissioning source. Therefore, it is extremely important to identify factors which induce academy graduates to be careerists as well as to develop policies for academy graduates based on the identified factors.

It is important to provide policies which can motivate members intrinsically in order to maintain or increase the strength of junior officers. Policy makers can enhance members' intrinsic military satisfaction partially by

providing facilities related to working conditions; by increasing the opportunity for job training/in-service education; and by increasing the probability of promotion.

By increasing satisfaction with retirement benefits, the policy makers can also induce early junior officers to be careerists. If the Army is going to increase or maintain the strength of LJ officers, the appropriate Army policies would focus on the provision of medical and dental care, commissary services, and a good environment for the family. The policy makers or personnel managers should consider differences between EJ officers and LJ officers as well as the factors which influence the career decisions of all junior officers in order to meet the Army objectives in terms of targeted strength of junior officers.

The results of this study can be used with reasonable confidence for making policies or managing personnel. Expressed intentions can be used as valid indicators of later behavior with reasonable confidence based on the closeness of the match between intentions and actual behavior.

C. Recommendations for Future Research

The following recommendations are made for future research in this area.

1. Include a questionnaire item asking about the length of total service intended after survey date. This item is not explicitly addressed by the current questionnaire but must be imputed by the analyst. If added, it may provide useful insight into the match of expressed intentions with actual behavior.

2. Maintain an ongoing matching the 1985 DOD Survey of Officer and Enlisted Personnel with the master file. This can not only provide confidence for results of analysis in this area but also be used to estimate the effects of policy changes.

3. Include information on events in an officer's military career in the period from survey date to the match date (for example, date and change of marital status, location of assignments. and dates of promotions).

4. Make a later or periodic survey of the same respondents. The effects on career orientation and actual staying behavior of changes in attitudes and perceptions as well as in demographic and environmental characteristics could be monitored.

APPENDIX A

Percentage of Junior Male Army Officers Career Orientation by Attribute

Variables	[prob][a] Early Junior % careerist	(n)	[prob] Late Junior % careerist	(n)
LOS	[.308]			
1 year	55.21	(55)		
2 year	47.31	(88)		
3 year	45.05	(82)		
4 year	52.50	(84)	[.001]	
5 year			63.08	(82)
6 year			71.43	(100)
7 year			79.49	(124)
8 year			86.84	(132)
9 year			84.51	(120)
10 year			90.24	(148)
OCCUPATION	[.043]		[.002]	
Combat arms	54.40	(136)	85.53	(266)
Non-combat arms	45.72	(171)	76.79	(440)

---

a. Statistical significance level of chi-square test of independence

COMMISSIONING SOURCE	[.001]		[.001]	
Academy	44.09	(41)	75.97	(98)
Regular ROTC	61.81	(123)	85.94	(269)
Scholarship ROTC	43.90	(90)	83.86	(187)
OCS/OTS	52.94	(18)	83.75	(67)
Others	37.93	(33)	60.15	(80)
RACE	[.094]		[.201]	
White	47.68	(247)	79.11	(581)
Other	56.60	(60)	83.80	(119)
DIPLOMA	[.001]		[.006]	
MA/MS and PHD over	33.61	(40)	73.88	(181)
Other	52.87	(267)	82.16	(525)
MARITAL STATUS	[.265]		[.017]	
Single without dependent	45.25	(119)	70.59	(108)
Single with dependent	50.00	(2)	78.26	(18)
Married without dependent	49.47	(94)	81.38	(153)
Married with dependent	55.09	(92)	82.12	(427)
SEPARATION(month)	[.601]		[.815]	
0	46.48	(33)	77.12	(118)
0 - 3	51.72	(105)	78.54	(322)
3 - 6	51.67	(31)	82.52	(85)

6 - 9	55.56	(5)	84.00	(21)
9 - 12	0	(0)	75.00	(3)
DEBT($)	[.814]		[.019]	
0	43.24	(32)	73.91	(85)
1 - 499	45.16	(14)	80.33	(49)
500 - 1,999	52.86	(37)	81.37	(83)
2,000 - 4,999	52.03	(64)	81.25	(130)
5,000 - 9,999	50.00	(65)	83.92	(167)
10,000 - 14,999	52.87	(46)	86.29	(107)
15,000 -	45.74	(43)	69.52	(73)
TOTAL INCOME(1984)($)	[.868]		[.231]	
- 4,999	50.00	(27)	75.74	(80)
5,000 - 14,999	52.63	(60)	66.47	(2)
15,000 - 24,999	48.12	(128)	75.56	(102)
25,000 -	48.42	(92)	81.56	(522)
FINDING A CIVILIAN JOB	[.353]		[.001]	
Less than or equal to fair possibility	47.06	(16)	91.49	(43)
Fairly good possibility	53.85	(14)	94.34	(50)
Good possibility	58.93	(33)	84.75	(50)
Probable	45.31	(29)	91.49	(86)
Very probable	54.44	(49)	83.54	(132)
Almost sure	46.09	(59)	80.37	(131)

Certain	47.00	(102)	68.51	(198)
MET EXPECTATION	[.001]		[.001]	
Strongly disagree	11.76	(2)	53.33	(8)
Disagree	34.48	(40)	66.67	(60)
Neither disagree/ agree	41.86	(36)	75.65	(87)
Agree	54.14	(183)	80.66	(417)
Strongly agree	69.84	(44)	92.14	(129)
RETIREMENT BENEFITS	[.001]		[.001]	
Very dissatisfied	80.00	(4)	42.86	(9)
Dissatisfied	43.33	(26)	80.22	(73)
Neither dissatisfact-ion/satisfaction	31.55	(59)	75.13	(142)
Satisfied	57.24	(174)	83.18	(371)
Very satisfied	67.74	(42)	82.11	(101)
OVERSEAS(YEAR)	[.026]		[.001]	
0	46.15	(138)	66.94	(83)
1 year	44.17	(53)	79.55	(105)
2 year	52.58	(51)	80.00	(112)
3 year	56.96	(45)	81.60	(204)
4 year	72.73	(8)	84.33	(113)
5 and over	100	(7)	90.22	(83)

UNDESIRABLE LOCATION	[.002]		[.001]	
No chance	62.50	(30)	81.48	(66)
Very slight possibility	71.79	(28)	90.14	(64)
Slight possibility	65.52	(38)	95.18	(79)
Some possibility	64.37	(56)	91.67	(121)
Fair possibility	65.67	(44)	86.21	(75)
Fairly good possibility	51.67	(31)	94.79	(91)
Good possibility	47.50	(19)	89.23	(58)
Probable	60.71	(17)	92.31	(36)
Very probable	52.31	(11)	75.61	(31)
Almost sure	8.33	(1)	76.00	(19)
Certain	28.57	(4)	72.73	(16)
JOB OFFER	[.380]		[.001]	
Yes	47.13	(123)	73.52	(286)
No	50.69	(184)	84.85	(420)
JOB SEARCH	[.197]		[.001]	
Yes	35.00	(7)	31.58	(6)
No	49.67	(300)	80.92	(700)

APPENDIX B

The Results of Factor Analysis

PRIOR COMMUNALITY ESTIMATES: ONE

PRELIMINARY EIGENVALUES: TOTAL = 18 AVERAGE = 1

	1	2	3	4	5	6	7	8	9
EIGENVALUE	5.190118	1.726281	1.197437	1.073180	0.904240	0.879940	0.855210	0.763648	0.728233
DIFFERENCE	3.463837	0.528844	0.124257	0.168940	0.024300	0.024731	0.091561	0.035416	0.046476
PROPORTION	0.2883	0.0959	0.0665	0.0596	0.0502	0.0489	0.0475	0.0424	0.0405
CUMULATIVE	0.2883	0.3842	0.4508	0.5104	0.5606	0.6095	0.6570	0.6994	0.7399

	10	11	12	13	14	15	16	17	18
EIGENVALUE	0.681757	0.650122	0.608711	0.578414	0.529662	0.454179	0.437211	0.382357	0.359361
DIFFERENCE	0.031635	0.041412	0.030296	0.048812	0.075423	0.016968	0.054854	0.022996	
PROPORTION	0.0379	0.0361	0.0338	0.0321	0.0294	0.0252	0.0243	0.0212	0.0200
CUMULATIVE	0.7778	0.8139	0.8477	0.8798	0.9093	0.9345	0.9588	0.9800	1.0000

3 FACTORS WILL BE RETAINED BY THE NFACTOR CRITERION

ITER	CHANGE	COMMUNALITIES
1	0.744915	0.41911 0.39694 0.45573 0.62419 0.40491 0.42947 0.68189 0.25509 0.3188. 0.53295 0.34374 0.48833 0.30891 0.51995 0.28029 0.65766 0.64816 0.34771
2	0.147490	0.3451. 0.31904 0.38491 0.56834 0.28148 0.35659 0.64910 0.15596 0.22250 0.45789 0.28982 0.39810 0.23411 0.47238 0.17741 0.61030 0.58920 0.20022
3	0.013491	0.33728 0.31050 0.37621 0.55089 0.26444 0.34893 0.64260 0.14976 0.21184 0.44254 0.28722 0.37974 0.22895 0.46974 0.16906 0.60273 0.57199 0.17673
4	0.004994	0.33675 0.30986 0.37538 0.54354 0.26264 0.34855 0.64106 0.14966 0.21095 0.43885 0.28753 0.37556 0.22889 0.47032 0.16873 0.60196 0.56399 0.17382
5	0.004599	0.33684 0.30994 0.37545 0.54010 0.26264 0.34878 0.64097 0.14977 0.21100 0.43792 0.28767 0.37452 0.22896 0.47065 0.16885 0.60265 0.55939 0.17338
6	0.002875	0.33690 0.31001 0.37554 0.53841 0.26274 0.34894 0.64137 0.14983 0.21107 0.43771 0.28772 0.37423 0.22898 0.47076 0.16892 0.60362 0.55652 0.17345
7	0.001871	0.33693 0.31004 0.37559 0.53751 0.26279 0.34903 0.64193 0.14985 0.21111 0.43768 0.28773 0.37414 0.22898 0.47078 0.16895 0.60453 0.55465 0.17351
8	0.001250	0.33693 0.31005 0.37562 0.53700 0.26280 0.34908 0.64252 0.14985 0.21113 0.43770 0.28773 0.37409 0.22898 0.47079 0.16896 0.60530 0.55340 0.17355
9	0.000851	0.33693 0.31006 0.37563 0.53667 0.26280 0.34910 0.64309 0.14985 0.21114 0.43771 0.28773 0.37406 0.22897 0.47078 0.16897 0.60592 0.55255 0.17356

CONVERGENCE CRITERION SATISFIED

EIGENVALUES OF THE REDUCED CORRELATION MATRIX: TOTAL = 6.47548 AVERAGE = 0.359749

	1	2	3	4	5	6	7	8	9
EIGENVALUE	4.570680	1.190441	0.714401	0.366458	0.244818	0.155512	0.108288	0.056620	0.032250
DIFFERENCE	3.380239	0.476040	0.347944	0.121639	0.089307	0.047223	0.051668	0.024370	0.029087
PROPORTION	0.7058	0.1838	0.1103	0.0566	0.0378	0.0240	0.0167	0.0087	0.0050
CUMULATIVE	0.7058	0.8897	1.0000	1.0566	1.0944	1.1184	1.1351	1.1439	1.1489

	10	11	12	13	14	15	16	17	18
EIGENVALUE	0.003163	-0.008044	-0.036861	-0.081582	-0.105111	-0.119564	-0.170787	-0.208098	-0.237099
DIFFERENCE	0.011207	0.028816	0.044722	0.023529	0.014452	0.051223	0.037311	0.029001	
PROPORTION	0.0005	-0.0012	-0.0057	-0.0126	-0.0162	-0.0185	-0.0264	-0.0321	-0.0366
CUMULATIVE	1.1494	1.1481	1.1424	1.1298	1.1136	1.0951	1.0686	1.0366	1.0000

INITIAL FACTOR METHOD: ITERATED PRINCIPAL FACTOR ANALYSIS

FACTOR PATTERN

	FACTOR1	FACTOR2	FACTOR3	
C1091638	0.65683	.	.	WORK CONDITIONS
C1091655	0.62225	.	-0.38690	STABILITY
C1091655	0.56781	.	.	FAMILY ENVIRONMENT
C1091650	0.52347	.	.	CO-WORKERS
C1091653	0.55714	.	.	HAPPY WITH JOB
C1091654	0.53470	.	.	JOB TRAINING
C1091658	0.54655	.	.	PERSONAL FREEDOM
C1091659	0.53002	.	.	PROMOTIONS
C1091653	0.52007	.	.	FRIENDSHIPS
C1091652	0.49782	.	.	PAY
C1091657	0.48157	.	.	JOB SECURITY
C1091651	0.38749	.	.	SERVE COUNTRY
C1091655	0.38055	.	.	YEAR BENEFITS
C1091654	0.38008	.	.	RETIREMENT
C1091659	.	.	.	COMMISSARY SERVICES
C1091656	0.49316	0.61076	.	DENTAL CARE
C1091657	0.48269	0.59202	.	MEDICAL CARE
C1091653	0.49985	.	-0.31498	MOVING

NOTE: VALUES LESS THAN 0.35 HAVE BEEN PRINTED AS .

VARIANCE EXPLAINED BY EACH FACTOR

FACTOR1	FACTOR2	FACTOR3
4.570680	1.190441	0.714401

FINAL COMMUNALITY ESTIMATES: TOTAL = 8.475522

0109105A	0109105B	0109105C	0109105D	0109105E	0109105F	0109105G	0109105H	0109105I
0.336930	0.310056	0.375628	0.536672	0.262800	0.349104	0.643088	0.149847	0.211142

0109105J	0109105K	0109105L	0109105M	0109105N	0109105O	0109105P	0109105Q	0109105R
0.437711	0.287733	0.374065	0.228974	0.470782	0.168967	0.605916	0.552547	0.173560

ROTATION METHOD: VARIMAX

ORTHOGONAL TRANSFORMATION MATRIX

	1	2	3
1	0.75931	0.47762	0.44195
2	-0.55905	0.82639	0.06741
3	0.33303	0.29826	-0.89450

ROTATED FACTOR PATTERN

	FACTOR1	FACTOR2	FACTOR3	
0109105J	0.65053	.	.	HAPPY WITH JOB
0109105K	0.61600	.	.	WORK CONDITIONS
0109105C	0.58474	.	.	CO-WORKERS
0109105L	0.56824	.	.	JOB TRAINING
0109105E	0.52416	.	.	FRIENDSHIPS
0.09105A	0.50875	.	.	PERSONAL FREEDOM
0109105I	0.44035	.	.	SERVE COUNTRY
0109105K	0.44019	.	.	PROMOTIONS
0109105M	0.42698	.	.	JOB SECURITY
0109105H	.	.	.	RETIREMENT
0.09105P	.	0.76446	.	MEDICAL CARE
0109105O	.	0.73618	.	DENTAL CARE
0.09105F	.	0.39997	.	FAMILY ENVIRONMENT
0109105Q	.	0.38776	.	COMMISSARY SERVICES
0109105E	.	.	.	PAY
0109105C	.	.	.	YEAR BENEFITS
0109105G	.	.	0.77928	MOVING
0109105D	0.38080	.	0.61170	STABILITY

NOTE: VALUES LESS THAN 0.35 HAVE BEEN PRINTED AS .

VARIANCE EXPLAINED BY EACH FACTOR

FACTOR1	FACTOR2	FACTOR3
3.086539	1.919198	1.469785

FINAL COMMUNALITY ESTIMATES: TOTAL = 6.475522

0109105A	0109105B	0109105C	0109105D	0109105E	0109105F	0109105G	0109105H	0109105I
0.336930	0.310056	0.375628	0.536672	0.262800	0.349104	0.643088	0.149847	0.211142

0109105J	0109105K	0109105L	0109105M	0109105N	0109105O	0109105P	0109105Q	0109105R
0.437711	0.287733	0.374065	0.228974	0.470782	0.168967	0.605916	0.552547	0.173560

SCORING COEFFICIENTS ESTIMATED BY REGRESSION

SQUARED MULTIPLE CORRELATIONS OF THE VARIABLES WITH EACH FACTOR

FACTOR1	FACTOR2	FACTOR3
0.778950	0.749461	0.690218

ROTATION METHOD: VARIMAX

STANDARDIZED SCORING COEFFICIENTS

	FACTOR1	FACTOR2	FACTOR3	
0109105J	0.23442	-0.07852	-0.05114	HAPPY WITH JOB
0109105N	0.20601	0.02597	-0.04090	WORK CONDITIONS
0109105C	0.17366	-0.01857	-0.03494	CO-WORKERS
0109105L	0.17522	0.04646	-0.09144	JOB TRAINING
0109105E	0.14438	-0.01632	-0.02912	FRIENDSHIPS
0109105A	0.12020	-0.03723	0.05681	PERSONAL FREEDOM
0109105I	0.10835	-0.04598	0.00129	SERVE COUNTRY
0109105H	0.09857	0.01384	0.02202	PROMOTIONS
0109105M	0.09505	0.02714	-0.02568	JOB SECURITY
0109105K	0.01968	0.02374	0.05030	RETIREMENT
0109105F	-0.08774	0.44176	-0.05128	MEDICAL CARE
0109105G	-0.10708	0.38533	-0.04338	DENTAL CARE
0109105P	0.03824	0.10343	0.03974	FAMILY ENVIRONMENT
0109105Q	0.00600	0.10637	-0.02192	COMMISSARY SERVICES
0109105B	0.01437	0.06617	0.08328	PAY
0109105O	0.03832	0.07313	-0.02373	YEAR BENEFITS
0109105O	-0.16468	-0.04760	0.61617	MOVING
0109105R	0.04841	-0.06782	0.30140	STABILITY

APPENDIX C

PEARSON CORRELATION COEFFICIENTS

PEARSON CORRELATION COEFFICIENTS / PROB > |R| UNDER HO:RHO=0 / NUMBER OF OBSERVATIONS

	CO	NCBT	LOS	ROTC	OTHERS	RACE	DIPLOMA	MWD	MWOD	DEBT	TOTINC	CIVILJOB	FAMSAT
CO	1.00000	-0.02619	0.34121	0.10945	-0.08966	0.04726	-0.07761	0.16307	-0.02255	0.00180	0.04817	-0.11790	0.12466
	0.0000	0.3094	0.0001	0.0001	0.0005	0.0665	0.0026	0.0001	0.3815	0.9450	0.0770	0.0001	0.0001
	1508	1508	1508	1508	1508	1508	1508	1508	1508	1475	1348	1478	1414
NCBT	-0.02619	1.00000	0.07134	-0.03576	0.19889	0.02279	0.27546	0.05199	0.01446	0.05183	0.18313	0.02791	-0.06344
	0.3094	0.0000	0.0056	0.1681	0.0001	0.3765	0.0001	0.0435	0.5749	0.0466	0.0001	0.2835	0.0170
	1508	1508	1508	1508	1508	1508	1508	1508	1508	1475	1348	1478	1414
LOS	0.34121	0.07134	1.00000	-0.03575	0.03013	-0.02313	0.14135	0.34238	-0.12437	-0.03079	0.38995	-0.04448	-0.06284
	0.0001	0.0056	0.0000	0.1652	0.2423	0.3694	0.0001	0.0001	0.0001	0.2373	0.0001	0.0874	0.0181
	1508	1508	1508	1508	1508	1508	1508	1508	1508	1475	1348	1478	1414
ROTC	0.10945	-0.03576	-0.03575	1.00000	-0.68617	0.08274	-0.22034	-0.09408	-0.01144	-0.01235	-0.12526	-0.15337	0.08201
	0.0001	0.1681	0.1652	0.0000	0.0001	0.0013	0.0001	0.0003	0.6571	0.6356	0.0001	0.0001	0.0020
	1508	1508	1508	1508	1508	1508	1508	1508	1508	1475	1348	1478	1414
OTHERS	-0.08966	0.19889	0.03013	-0.68617	1.00000	-0.01262	0.35595	0.19829	-0.05425	0.10958	0.20293	0.07294	-0.08122
	0.0005	0.0001	0.2423	0.0001	0.0000	0.6245	0.0001	0.0001	0.0352	0.0001	0.0001	0.0050	0.0022
	1508	1508	1508	1508	1508	1508	1508	1508	1508	1475	1348	1478	1414
RACE	0.04726	0.02279	-0.02313	0.08274	-0.01262	1.00000	-0.05795	0.01443	-0.03370	0.03691	-0.03110	-0.00739	-0.00640
	0.0665	0.3765	0.3694	0.0013	0.6245	0.0000	0.0244	0.5754	0.1909	0.1577	0.2539	0.7801	0.8101
	1508	1508	1508	1508	1508	1508	1508	1508	1508	1475	1348	1478	1414
DIPLOMA	-0.07761	0.27546	0.14135	-0.22034	0.35595	-0.05795	1.00000	0.19035	-0.04020	0.04931	0.28784	0.12799	-0.15284
	0.0026	0.0001	0.0001	0.0001	0.0001	0.0244	0.0000	0.0001	0.1187	0.0583	0.0001	0.0001	0.0001
	1508	1508	1508	1508	1508	1508	1508	1508	1508	1475	1348	1478	1414
MWD	0.16307	0.05199	0.34238	-0.09408	0.19829	0.01443	0.19035	1.00000	-0.52907	0.12083	0.17018	0.01457	-0.07210
	0.0001	0.0435	0.0001	0.0003	0.0001	0.5754	0.0001	0.0000	0.0001	0.0001	0.0001	0.5758	0.0067
	1508	1508	1508	1508	1508	1508	1508	1508	1508	1475	1348	1478	1414
MWOD	-0.02255	0.01446	-0.12437	-0.01144	-0.05425	-0.03370	-0.04020	-0.52907	1.00000	0.06129	0.20785	0.01578	-0.00872
	0.3815	0.5749	0.0001	0.6571	0.0352	0.1909	0.1187	0.0001	0.0000	0.0186	0.0001	0.5444	0.7432
	1508	1508	1508	1508	1508	1508	1508	1508	1508	1475	1348	1478	1414

PEARSON CORRELATION COEFFICIENTS / PROB > |R| UNDER H0:RHO=0 / NUMBER OF OBSERVATIONS

	CO	NCBT	LOS	ROTC	OTHERS	RACE	DIPLOMA	MWD	MWOD	DEBT	TOTINC	CIVILJOB	FAMSAT
DEBT	0.00180	0.05182	-0.03079	-0.01235	0.10958	0.03681	0.04931	0.12083	0.06129	1.00000	0.05336	0.04451	-0.04090
	0.9450	0.0466	0.2373	0.6356	0.0001	0.1577	0.0583	0.0001	0.0186	0.0000	0.0506	0.0892	0.1275
	1475	1475	1475	1475	1475	1475	1475	1475	1475	1475	1343	1459	1390
TOTINC	0.04817	0.16313	0.38996	-0.12526	0.20293	-0.03110	0.28784	0.17018	0.20785	0.05336	1.00000	0.12198	-0.12786
	0.0770	0.0001	0.0001	0.0001	0.0001	0.2538	0.0001	0.0001	0.0001	0.0506	0.0000	0.0001	0.0001
	1348	1348	1348	1348	1348	1348	1348	1348	1348	1343	1348	1334	1272
CIVILJOB	-0.11790	0.02791	-0.04448	-0.15337	0.07294	-0.09739	0.12799	0.01457	0.01578	0.04451	0.12198	1.00000	-0.11061
	0.0001	0.2835	0.0874	0.0001	0.0050	0.0002	0.0001	0.5758	0.5444	0.0892	0.0001	0.0000	0.0001
	1478	1478	1478	1478	1478	1478	1478	1478	1478	1459	1334	1478	1390
FAMSAT	0.12668	-0.06244	-0.06284	0.08101	-0.08122	-0.00640	-0.15284	-0.07210	-0.00872	-0.04090	-0.12786	-0.11061	1.00000
	0.0001	0.0170	0.0161	0.0020	0.0022	0.8101	0.0001	0.0067	0.7432	0.1275	0.0001	0.0001	0.0000
	1414	1414	1414	1414	1414	1414	1414	1414	1414	1390	1272	1390	1414
IMS	0.34716	0.00481	0.07427	0.00217	-0.06203	-0.02201	-0.02612	0.06690	0.04651	0.02181	-0.04728	0.00311	0.12717
	0.0001	0.7109	0.0052	0.9251	0.0197	0.4081	0.3264	0.0119	0.0804	0.4165	0.0919	0.9078	0.0001
	1414	1414	1414	1414	1414	1414	1414	1414	1414	1390	1272	1390	1414
METEXP	0.24024	0.06117	0.13843	-0.00820	0.02867	0.00402	0.04122	0.06064	0.03597	0.04820	0.08609	0.00085	0.22532
	0.0001	0.0179	0.0001	0.7515	0.2677	0.8746	0.1109	0.0189	0.1642	0.0644	0.0016	0.9740	0.0001
	1497	1497	1497	1497	1497	1497	1497	1497	1497	1473	1346	1476	1409
EMS	0.05278	0.04169	-0.03836	-0.01946	0.05552	0.11264	0.04367	-0.08849	0.00089	0.00294	-0.00011	-0.04077	0.09036
	0.0470	0.1171	0.1381	0.4648	0.0137	0.0001	0.1055	0.0009	0.9733	0.9127	0.9967	0.1287	0.0007
	1414	1414	1414	1414	1414	1414	1414	1414	1414	1390	1272	1390	1414
PAYALL	0.05945	-0.01772	-0.10869	0.07184	-0.04498	0.00377	-0.04835	-0.11798	0.02527	-0.09497	-0.10862	-0.14009	0.37148
	0.0216	0.4926	0.0001	0.0058	0.0838	0.8841	0.0618	0.0001	0.3288	0.0003	0.0001	0.0001	0.0001
	1495	1495	1495	1495	1495	1495	1495	1495	1495	1467	1341	1470	1414
RETBEN	0.14139	0.01042	0.09178	-0.03212	0.01295	-0.17911	0.02938	0.01390	0.01285	0.01913	-0.04769	-0.04824	0.27868
	0.0001	0.6868	0.0459	0.3415	0.6363	0.0001	0.2573	0.5921	0.6204	0.4648	0.0814	0.0651	0.0001
	1488	1488	1488	1488	1488	1488	1488	1488	1488	1462	1336	1463	1414
UNDLOC	-0.11054	0.00170	0.03901	0.02818	-0.03927	0.02020	0.01657	-0.00601	-0.01178	0.03734	0.00237	-0.05962	-0.24059
	0.0001	0.9805	0.1740	0.3262	0.1711	0.4816	0.5637	0.8341	0.6815	0.1975	0.9375	0.0392	0.0001
	1216	1216	1216	1216	1216	1216	1216	1216	1216	1193	1098	1197	1136

PEARSON CORRELATION COEFFICIENTS / PROB > |R| UNDER HO:RHO=0 / NUMBER OF OBSERVATIONS

	INS	METEXP	EMS	PAYALL	RETBEN	UNDLOC
CO	0.34716	0.24024	0.05276	0.05943	0.14334	-0.11054
	0.0001	0.0001	0.0473	0.0216	0.0001	0.0001
	1414	1497	1414	1495	1488	1216
NCBT	0.00951	0.06117	0.04169	-0.01772	0.01046	0.00070
	0.7209	0.0179	0.1171	0.4936	0.6868	0.9805
	1414	1497	1414	1495	1488	1216
LOS	0.07427	0.13648	-0.08364	-0.10809	0.05176	0.03901
	0.0052	0.0001	0.0016	0.0001	0.0459	0.1740
	1414	1497	1414	1495	1488	1216
HOTO	0.001.7	-0.00826	-0.01946	0.07134	-0.02223	0.02818
	0.9351	0.7513	0.4649	0.0058	0.3915	0.3262
	1414	1497	14.4	1495	1488	1216
OTHERI	-0.00203	0.02857	0.06556	-0.01498	0.02295	-0.03927
	0.9197	0.2677	0.0137	0.5628	0.3763	0.1711
	1414	1497	1414	1495	1488	1216
RACE	-0.02202	0.0.408	0.11264	0.00377	-0.11791	0.02020
	0.4081	0.8746	0.0001	0.8842	0.0001	0.4916
	1414	1497	1414	1495	1488	1216
DIPLOMA	-0.02611	0.04122	0.04307	-0.04835	0.02958	0.01557
	0.3264	0.1107	0.1055	0.0618	0.2573	0.5637
	1414	1497	1414	1495	1488	1216
MAL	0.06697	0.06064	-0.08849	-0.11798	0.01390	-0.03601
	0.0119	0.0184	0.0009	0.0001	0.5921	0.8341
	1414	1497	1414	1495	1488	1216
MCD	0.04651	0.03597	0.00084	0.02517	0.01285	-0.01178
	0.0804	0.1642	0.9733	0.3288	0.6204	0.6815
	1414	1497	1414	1495	1488	1216

PEARSON CORRELATION COEFFICIENTS / PROB > |R| UNDER HO:RHO=0 / NUMBER OF OBSERVATIONS

	IMS	RETEXP	EMS	PAYALL	RETBEN	UNDLOC
DEBT	0.02181	0.04820	0.00294	-0.09497	0.01913	0.03734
	0.4165	0.0644	0.9127	0.0003	0.4648	0.1975
	1390	1473	1390	1467	1462	1193
TOTINC	-0.04729	0.08609	-0.00011	-0.10862	-0.04769	0.00237
	0.0919	0.0016	0.9967	0.0001	0.0814	0.9375
	1272	1346	1272	1341	1336	1098
CIVILJOB	0.00311	0.00085	-0.04077	-0.14008	-0.04824	-0.05962
	0.9078	0.9740	0.1287	0.0001	0.0651	0.0392
	1390	1476	1390	1470	1463	1197
PAYGOV	0.12717	0.12531	0.09036	0.37146	0.27869	-0.24059
	0.0001	0.0001	0.0007	0.0001	0.0001	0.0001
	1414	1409	1414	1414	1414	1136
IMS	1.00000	0.46208	0.07245	0.30434	0.28965	-0.20135
	0.0000	0.0001	0.0064	0.0001	0.0001	0.0001
	1414	1409	1414	1414	1414	1136
RETEXP	0.46208	1.00000	0.16219	0.22403	0.19649	-0.17505
	0.0001	0.0000	0.0001	0.0001	0.0001	0.0001
	1409	1497	1409	1489	1481	1209
EMS	0.07245	0.16219	1.00000	0.35880	0.20302	-0.12819
	0.0064	0.0001	0.0000	0.0001	0.0001	0.0001
	1414	1409	1414	1414	1414	1136
PAYALL	0.30434	0.22403	0.35880	1.00000	0.32313	-0.17130
	0.0001	0.0001	0.0001	0.0000	0.0001	0.0001
	1414	1489	1414	1475	1487	1206
RETBEN	0.28965	0.19649	0.20302	0.32313	1.00000	-0.06819
	0.0001	0.0001	0.0001	0.0001	0.0000	0.0182
	1414	1481	1414	1482	1488	1200
UNDLOC	-0.20135	-0.17505	-0.12819	-0.17130	-0.06819	1.00000
	0.0001	0.0001	0.0001	0.0001	0.0182	0.0000
	1136	1209	1136	1206	1200	1216

LIST OF REFERENCES

1. Aaron B., Nadel, Jay B. and Mowbray, Motivation and Retention in the Army, (AD-A079 183) U.S. Army Personnel Research Office, Washington D.C., 1966.

2. Arnold, H.J. and Feldman, D.C., "A Multivariate Analysis of the Determinants of Job turnover", Journal of Applied Psychology, 67, 1982, 350-360.

3. Ashcraft, Raymond J., An analysis of the Factors Affecting the Career Orientation of Junior URL Naval Officers, NPS Thesis, 1974.

4. Becker, Gary. Human Capital. 2nd ed. New York: National Bureau of Economic Research, 1975.

5. Blair, John D. and Phillips, Robert L. "Job Satisfaction Among Youth in Military and Civilian Work Settings", Armed Forces and Society, Vol.9 No.4, 1983, 555-568.

6. Bluedorn, Allen C., "A Unified Model of Turnover from Organizations", Human Relations, 35, 1982, 135-153.

7. Bluedorn, Allen C. "Structure, Environment, and Satisfaction: Toward a Causal Model of Turnover from Military Organizations", Journal of Political and Military Sociology, Vol.7,1979, 181-207.

8. Brewer, Thomas L., "The Impact of Advanced Education on American Military Officers", Armed Forces and Society, Vol.2, No.1, November 1975.

9. Burk, J., "Patriotism and the All-Volunteer Force", Journal of Political and Military Sociology, Vol.12, 1984, 229-241.

10. Chow, W. and Polich, J., "Models of the First-Term Reenlistment Decision", (R-2468-MRAL) Santa Monica, CA: The Rand Corporation, 1980.

11. Doring, Zahava D. and others, The 1985 DOD Survey of Officer and Enlisted Personnel, Defence Manpower Data Center, 1986.

12. Ehrenberg, R.G. and Smith, R.S., Modern Labor Economics, Scott, Foresman and Company, Illinois, 1988.

13. Faris, John H., "Economic and Noneconomic Factors of Personnel Recruitment and Retention in the AVF", Armed Forces and Society, 10, 1984, 251-275.

14. Flowers, U.S., and Hughes, C.L., "Why Employees Stay", Harvard Business Review, pp. 49-60, Jul-Aug 1973.

15. Gotz, Glenn A. and McCall, John J., "Sequential Analysis of the Stay/Leave Decision: U.S. Air Force Officers", Management Science, Vol. 29, No.3, March 1983.

16. Gujarati, Damodar N., Basic Econometrics, McGraw-Hill Book Company, N.Y., 1988.

17. Hayden, Lewell P., FActors Influencing the Carer Orientation of Junior Officers in the United States Army, M.S. Thesis, NPS. Monterey, CA, 1985.

18. Herzberg, F., Mausner, B. and Synderman, B.B., The Motivation to Work, Wiley, New York, N.Y., 1959.

19. Hunter, Fumiyo T., Tenure Patterns of U.S. Army Commissioned Officers in the 1970's and 1980's (AD A197 610), Alexandria, VA. 1988.

20. Hutchens, robert M., "Do JOb Opportunities Decline With Age?", Industrial and Labor Relations Review, Vol.42, No.1, October 1988.

21. Kim, Jae-on, Mueller, Charles W., Introduction to Factor Analysis: What It Is and How To Do It, SAGE University Paper, SAGE Publications, Beverly Hills, CA 90212, 1982.

22. Lee, R. and Wilbur, E.R., "Age, Education, Job Tenure, Salary, Job Characteristics, and Job Satisfaction: A Multivariate Analysis", Human relations, 38, 1985, 781-791.

23. Lowell, Richard W., An Analysis of the Factors Affecting the Career Orientation/Turnover Behavior of Female Naval Officers, M.S. Thesis, NPS. Monterey, CA, 1987.

24. Maslow, A.H., Motivation and Personality, New York, Harper, 1954.

25. Muchinsky, P.M., Psychology Applied to Work, The Dorsey Press, 1983, 317-391.

26. Porter, L. and Steers, R., "Organizational, Work and Personal Factors in Employee Turnover and Absenteeism", Psychological Bulletin, 80, 1973, 151-176.

27. Rashmi Lal, A Model of Employment Decision Making: An Analysis of Quit/Stay Decisions of Junior Army Officers, (AD-A201 844), Engineering and Economics Research, Inc., Virginia, 1988.

28. Reed, William R., An Analysis of Nonpecuniary Job Attributes As Determinants of Workers' Quit Behavior, University Microfilms International, Ann Arbor, Michigan, 1986.

29. Segal, David R., Yoon, Young Hee., "Institutional and Occupational Models of the Army in the Career Force: Implications for Definition and Perceptions of Combat Readiness", Journal of Political and Military Sociology, Vol.12 PP.243-256, 1984.

30. Steers, Richard M. and Porter, Lyman W., Motivation and Work Behavior, McGraw-Hill Book Company, New York, N.Y., 1975.

31. Wernimont, Paul F. "Intrinsic Factors in Job Satisfaction", Journal of Applied Psychology, Vol.50, No.1, 1966, 41-50.

32. Williams, Larry J., Hazer, John T., "Antecedents and Consequences of Satisfaction and Commitment in Turnover Models: A Reanalysis Using Latent Variable Structural Equation Methods", Journal of Applied Psychology, Vol.71, No.2, PP.219-231, 1986.

BIBLIOGRAPHY

Dunnete, Marvin D., Campbell, John P., and Hakel, Milton D., "Factors Contributing to Job Satisfaction and Job Dissatisfaction in Six Occupational Groups", Organizational Behavior and Human Performance, V.2, n.2, pp. 143-174, 1967.

Fredland, J.E and Little, R.D., "Job Satisfaction Determinants: Differences Between Servicemen and Civilians", Journal of Political and Military Sociology, 11, 1983, 265-280.

Freedman, Sara M. and Phillips, James S., "The Effects of Situational Performance Constraints on Intrinsic Motivation and Satisfaction: The Role of Perceived Competence and Self-Determination", Organizational Behavior and Human Decision Process, Vol.35, 1985, 397-416.

Hall, Douglas T. and Nougaim, Khalil E., "An Examination of Maslow's Need Hierarchy in an Organizational Setting", Organizational Behavior and Human Performance, Vol.3, 1968, 12-35.

Hamner, W.C. and Organ, D.W., Organizational Behavior: An Applied Psychological Approach, Business Publications, Inc., Dallas, TX, 1978.

House, R.J. and Wigdor, L.A., "Herzberg's Dual-Factor Theory of Job Satisfaction and Motivation: A Review of the Evidence and Criticism", Personnel Psychology, V.20, n.4, pp.369-389, 1967.

Michael Lawrence and Spyros Makridakis, "Factors Affecting Judgmental Forecasts and Confidence Intervals", Organizational Behavior and Human Decision Process, Vol.42, 1989, 172-187.

Mortensen, Dale T., "Wages, Separations, and Job Tenure: On-the-Job Specific Training or Matching?", Journal of Labor Economics, vol.6, No.4, 1988

Porter,L.W. and Mitchell,V.F., "Comparative Study of Need Satisfactions in Military and Business Hierarchies", Journal of Applied Psychology, V. 51, n.2, pp.139-144, 1967.

SAS User's Guide:Basics, Version 5 Edition, Cary, NC: SAS Institute Inc., 1985.

SAS User's Guide:Statistics, Version 5 Edition, Cary, NC: SAS Institute Inc., 1985.

Scott, W. E. Jr. and Farh, Jiing-Lih and Podsakoff Philip M., "The Effects of 'Intrinsic' and 'Extrinsic' Reinforcement Contingencies on Task Behavior", Organizational Behavior and Human Decision Process, Vol.41, 1988, 405-425.

Starcevich, M.M, "The Relationship Between the 'Central Life Interest' of First-Line Managers, Middle Managers and Professional Employees and Job Characteristics as Satisfiers and Dissatisfiers", Personnel Psychology, V.26, pp. 107-115, 1973.

Stepina,Lee P. and Brand, Julianne F., "Relations Job Facet Comparisons and Employee Reactions", Organizational Behavior and Human Decision Process, Vol.38, 1986, 28-47.

Survey of Factors Relating to the Retention of Junior Officers, (AD-A010 349), Army Military Personnel Center, Alexandria, VA, 1973.

Warner,J. and Goldberg, M., "The Influence of Non-Pecuniary Factors on Labor Supply: The Case of Navy Enlisted Personnel", Review of Economics and Statistics, 27,1984.

INITIAL DISTRIBUTION LIST

1.	Defense Technical Information Center Cameron Station Alexandria, VA 22304-6145	2
2.	Library, Code 0142 Naval Postgraduate School Monterey, CA 93943-5002	2
3.	Professor George W. Thomas Code 54TE Naval Postgraduate School Monterey, CA 93943-5000	2
4.	Kathryn M. Kocher, Labor Economist Code 54 Naval Postgraduate School Monterey, CA 93943-5000	2
5.	Library, P.O. Box 77 Gong Neung Dong, Dobong Gu Seoul, Republic of Korea	1
6.	Ha, Tae Hwan 94-25 Joong Gok 4 Dong Sung Dong Gu, Seoul Republic of Korea	5

617-586